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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/785,332	02/24/2004	Delton R. Thompson	55135US011	8759
32692	7590	08/21/2006	EXAMINER	
3M INNOVATIVE PROPERTIES COMPANY			POULOS, SANDRA K	
PO BOX 33427			ART UNIT	
ST. PAUL, MN 55133-3427			PAPER NUMBER	

1714

DATE MAILED: 08/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/785,332

Applicant(s)

THOMPSON ET AL.

Examiner

Sandra K. Poulos

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8/23/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 3 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Gregorian et al (US 4,118,526).

Gregorian discloses the preparation of a fabric treatment coating composition containing a fluorochemical component such as Scotchguard FC-210, a melamine (thermosetting) resin, and ammonium chloride (as an antistat agent) and the composition is cured (abstract; example 2; col 2, line 63; col 5 line 47 to col 6 line 11). Chloride ion is considered to have sufficient acidity, in accordance with applicant's own disclosure, which lists chloride as an acceptable anion. The coating is applied to a polyester fabric, which is considered to be insulating, in accordance with applicant's own disclosure.

Thus, Gregorian anticipates the cited claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

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the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oxenrider et al (3,899,563) in view of Mueller (US 3,968,066).

Oxenrider discloses an oil and stain repellant that contains a fluorocompound additive which provides repellency when added to thermoplastic resins (col 1, lines 35-40; col 2, lines 11-14). The method for forming the blend is not critical; it can be formed by treating the resin the powder form with a solution of the additive and then extruding (and thus melting) the resin and drying, or it can be formed by dry blending the additive with the resin in powdered form and then milling (col 9, lines 33-42). The composition is used for textiles (col 1, lines 35-55).

Oxenrider does not disclose use of an ionic salt component.

Mueller discloses a fluorochemical textile resin useful to impart oil and water repellency which is improved by the presence of a quaternary ammonium salt (abstract). Representative ammonium compounds are given in formula (a) (col 2, lines 16-67). Mueller discloses that the quaternary ammonium salts improves the soil resistance of the textile resins without degrading the oil and water resistance. Therefore it would have been obvious to one of ordinary skill in the art to incorporate the

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ammonium salt disclosed by Mueller in the composition by Oxenrider in order to enhance soil resistance and that the resulting combination would intrinsically possess antistatic properties. Since the Oxenrider discloses that the method of blending is not critical, it would have been obvious to one of ordinary skill in the art to incorporate the ammonium salt either together with the fluorochemical and polymer or to apply it separately to the combination fluorochemical/polymer blend.

3. Claims 4-5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sherman (US 4,043,964) in view of Mueller (US 3,968,066).

Sherman discloses a method of coating carpet fibers with a composition comprising a polymer derived from a polymerizable ethylenically unsaturated monomer and a fluorinated component, wherein the coating provides soil resistance (abstract; col 1). When the composition is coated it may form a two-phase system where the addition polymer forms a film on the substrate while the fluorinated polymer or compound forms a film on the surface of the addition polymer film or the two may form intergrowth networks (co 6, lines 60-65).

Sherman does not disclose use of an ionic salt component.

Mueller discloses a fluorochemical textile resin useful to impart oil and water repellency which is improved by the presence of a quaternary ammonium salt (abstract). Representative ammonium compounds are given in formula (a) (col 2, lines 16-67). Mueller discloses that the quaternary ammonium salts improve the soil resistance of the textile resins without degrading the oil and water resistance. Therefore

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it would have been obvious to one of ordinary skill in the art to incorporate the ammonium salt disclosed by Mueller in the composition by Sherman in order to enhance soil resistance and that the resulting combination would intrinsically possess antistatic properties. Additionally, it would have been obvious to incorporate the salt with either the fluorinated phase or addition polymer phase when coating the substrate.

4. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lamanna et al (US 6,372,829) in view of Oxenrider et al (3,899,563).

The applied reference (Lamanna) has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

Lamanna discloses an antistatic composition comprises (a) at least one ionic salt consisting of a nonpolymeric nitrogen onium cation and a weakly coordinating fluoroorganic anion, the conjugate acid of the anion being a superacid; and (b) at least one thermoplastic polymer and the composition exhibits good antistatic performance over a wide range of humidity levels (abstract). Electrostatic charging can cause materials to stick together or to repel one another, which is a particular problem in fiber

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and textile processing (col 1, lines 15-20). Static charge buildup can cause objects to attract dirt and dust, which can lead to fabrication or soiling problems and can impair product performance (col 1, lines 15-20). The composition may be melt processed or dissolved in a solvent with an insulating material, or the monomer polymerized while combining the components (col 11, line 57 to col 12 line 11).

Lamanna does not disclose a fluorochemical repellant.

Oxenrider discloses an oil and stain repellant that contains a fluorocompound additive which provides repellency when added to thermoplastic resins (col 1, lines 35-40; col 2, lines 11-14). The fluorochemical allows fibers and textiles to exhibit better stain and soil repellency and stain release but not otherwise affect the fiber or fabric (col 1, lines 35-45). It would have been obvious to one of ordinary skill in the art to incorporate the fluorochemical repellant of Oxenrider into the Lamanna composition so to attain a textile or fiber with better stain and soil repellency.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sandra K. Poulos whose telephone number is (571) 272-6428. The examiner can normally be reached on M-F 8:00-4:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Sandra K. Poulos

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